

Computer-aided Education to Aid Informed Decision Making regarding Dialysis Treatment Options

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Patients with chronic kidney failure require extensive education to enable informed decision making about treatment options. At Christchurch Hospital patients with chronic renal failure are offered two home-based options, namely hemodialysis or continuous ambulatory peritoneal dialysis.

Current practice addresses the issue of informing patients by involving them in direct professional consultation or instruction (doctors, nurses, clinical technicians and social worker) supplemented by video, and written literature.

Professional discussion and advice, although offering high levels of quality interaction and involvement, is expensive. Its availability may not always coincide with the patient's readiness to seek or receive relevant information. Information on paper may be more accessible and empowering for some, but not all patients (e.g. those with reading and language difficulties), and it lacks interactive involvement.

Computer controlled interactive multimedia educational systems have the theoretical potential for incorporating the desirable features of these existing educational resources. They also allow for information to be presented in a variety of ways e.g. random

access, sequential, hierarchical or in a combination of these.

A circumscribed knowledge base has been developed to represent the information presumed relevant to making an informed choice of treatment.

A multimedia (text, sound, still picture and video) interactive program is being developed on a 565TI IBM compatible computer with 2.5 GB hard drive, colour monitor, running Windows 3.1 and using Toolbook V4.0 multimedia authoring software. This program allows the patient to work on their own through the necessary information required to make an unbiased and informed decision. It is designed to allow the patient to progress at their own speed and only to move on once they are satisfied with a particular topic. The program has been trialled on members of the Department of Nephrology and some patients already on dialysis. As a result of their feedback modifications have been made to the knowledge base and the program structure. It is intended to add full motion video in the future.

It is proposed to evaluate the effectiveness of supported patient decision making and conduct research into the criteria on which patients base their decisions.